INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/002532

A. CLASSIFICATION OF SUBJECT MATTER

Int.CL. B22D11/06, B21B1/22, 3/00, B22D11/00, C22C21/00, F28F21/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl. B22D11/06, B21B1/22, 3/00, B22D11/00, C22C21/00, F28F21/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Published examined utility model applications of Japan 1922-1996
Published unexamined utility model applications of Japan 1971-2005
Registered utility model specifications of Japan 1996-2005
Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X X	02 2000 12000 (1-3,8,11-16 4-7,9,10
Y	JP 9-310137 A (FURUKAWA ELECTRIC) 1997.12.02, [0018] - [0036] (Family:None)	4,5,9,10
A	JP 2002-241910 A (FURUKAWA ELECTRIC) 2002.08.28, [0021] - [0079] & US 2003/0015573 A1	1-16
Y	JP 2000-204427 A (SUMITOMO LIGHT METAL INDUSTRIES, Ltd.) 2000.07.25, [0015] - [0028] (Family: None)	6,7

	Further documents are listed in the continuation of Box C.	Γ	See patent family annex.		
* "A"	Special categories of cited documents: document defining the general state of the art which is not	"T"	later document published after the internation	onal filing date or lication but cited to	
1 ^	considered to be of particular relevance		understand the principle or theory underlying the	e invention	
"E"	"E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means		be considered novel or cannot be considered to involve an		
"L"			inventive step when the document is taken alone		
			document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such		
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«p»	document published prior to the international filing date but later		combination being obvious to a person skulled	in the art	
1	than the priority date claimed	"&"	document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report			
08.06.2005		21. 6. 20 05			
Name and mailing address of the ISA/JP			horized officer	4E 8727	
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